



NEILSON RESEARCH CORPORATION

Environmental Testing Laboratory

10/6/2016

Sara Sarensen
Lake County ESD
357 N L St
Lakeview, OR 97630

TEL: (541) 947-3371

FAX

RE: Lead & Copper Study

Order No.: 1610039

Dear Sara Sarensen:

Neilson Research Corporation received 3 sample(s) on 10/3/2016 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,
Neilson Research Corporation

Alec C Smith
Project Manager

245 S Grape St • Medford, OR 97501 • (541) 770-5678
400 SE G St, Suite B • Grants Pass, OR 97526 • (541) 479-4053

www.nrclabs.com

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORELAP 100016
EPA OR00028

CLIENT: Lake County ESD
Project: Lead & Copper Study
Lab Order: 1610039

Date: 06-Oct-16

CASE NARRATIVE

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

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Analysis Report

ORELAP 100016
EPA OR00028

Lake County ESD
357 N L St
Lakeview, OR 97630

Lab Order: **1610039**
NRC Sample ID: **1610039-01A**
Collection Date: **9/30/2016 7:30:00 AM**
Received Date: **10/3/2016 2:50:00 PM**
Reported Date: **10/6/2016 2:52:58 PM**

Sample Information:

Lead & Copper Study

Client Sample ID: Bottle #21509
Collectors Name: Sara Sarensen
Sample Location: Ladies Sink - 3rd
Source:

ANALYTICAL RESULTS

Analyses	Method	NELAP		Qual	MRL	Units	EPA Limit	Date Analyzed	Analyst
		Accredited	Result						
Copper	EPA 200.8	A	0.0968		0.0005	mg/L	1.3 AL	10/5/2016	OML
Lead	EPA 200.8	A	0.00186		0.0001	mg/L	0.020 AL	10/5/2016	OML

Notes: ND - Not Detected at the MRL

N.L. - No Limit

MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

Lake County ESD
357 N L St
Lakeview, OR 97630

Lab Order: **1610039**
NRC Sample ID: **1610039-02A**
Collection Date: **9/30/2016 7:30:00 AM**
Received Date: **10/3/2016 2:50:00 PM**
Reported Date: **10/6/2016 2:52:58 PM**

Sample Information:

Client Sample ID: Bottle #21553
Collectors Name: Sara Sarensen
Sample Location: Utility Sink - 3rd
Source:

Lead & Copper Study

ANALYTICAL RESULTS

Analyses	Method	NELAP		Qual	MRL	Units	EPA Limit	Date Analyzed	Analyst
		Accredited	Result						
Copper	EPA 200.8	A	0.121		0.0005	mg/L	1.3 AL	10/5/2016	OML
Lead	EPA 200.8	A	0.00148		0.0001	mg/L	0.020 AL	10/5/2016	OML

Notes: ND - Not Detected at the MRL

N.L. - No Limit

MRL - Minimum Reporting Limit

Neilson Research Corporation

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Analysis Report

ORELAP 100016
EPA OR00028

Lake County ESD
357 N L St
Lakeview, OR 97630

Lab Order: **1610039**
NRC Sample ID: **1610039-03A**
Collection Date: **9/30/2016 7:30:00 AM**
Received Date: **10/3/2016 2:50:00 PM**
Reported Date: **10/6/2016 2:52:58 PM**

Sample Information:

Client Sample ID: Bottle #21499
Collectors Name: Sara Sarensen
Sample Location: Men's Sink - 3rd
Source:

Lead & Copper Study

ANALYTICAL RESULTS

Analyses	Method	NELAP		Qual	MRL	Units	EPA Limit	Date Analyzed	Analyst
		Accredited	Result						
Copper	EPA 200.8	A	0.361		0.0005	mg/L	1.3 AL	10/5/2016	OML
Lead	EPA 200.8	A	0.0322	CF*	0.0001	mg/L	0.020 AL	10/5/2016	OML

Notes: ND - Not Detected at the MRL

N.L. - No Limit

MRL - Minimum Reporting Limit

Neilson Research Corporation
DATA FLAGS

B	Analyte detected in the associated method blank.
BA	BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
C	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
C1	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
CF	Results confirmed by re-analysis.
CU	Cleanup performed as specified by method.
D1	The diesel elution pattern for the sample is not typical.
D2	The sample appears to be a heavier hydrocarbon range than diesel.
D3	The sample appears to be a lighter hydrocarbon range than diesel.
D4	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
D5	Detected hydrocarbons in the diesel range appear to be weathered diesel.
E	Estimated value.
ER	Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
FC	Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
G1	The gasoline elution pattern for the sample is not typical.
G2	The sample appears to be a heavier hydrocarbon range than gasoline.
G3	The sample appears to be a lighter hydrocarbon range than gasoline.
G4	Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
HP	Sample re-analysis performed outside of method specified holding time.
HR	Sample received outside of method specified holding time.
HS	Sample analyzed for volatile organics contained headspace.
HT	At the client's request, the sample was analyzed outside of method specified holding time.
H	Analysis performed outside of method specified holding time.
J	Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
MI	Surrogate or Matrix Spike recovery is out of control limits due to matrix interference. Sample results may be biased.
N	See Case Narrative on page 2 of report.
Q	Closing continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
R	Relative percent difference (RPD) is outside of the accepted recovery limits.
R1	Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
R3	The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
R4	Duplicate analysis failed due to result being at or near method reporting limit.
S	Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
S1	Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
SC	Sub-contracted to another laboratory for analysis.
SP	Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
T	Toxicity Characteristic Leaching Procedure – Sample submitted contained < 0.5% solids. If the waste contains <0.5% dry solids, the liquid portion of the waste, after filtration, is defined as the TCLP extract.
#	Value exceeds regulatory level for TCLP contaminant.
X1	The motor oil elution pattern for the sample is not typical.
X2	The sample appears to be a heavier hydrocarbon range than motor oil.
X3	The sample appears to be a lighter hydrocarbon range than motor oil.
*	Value exceeds Maximum Contaminant Level or is outside the acceptable range.

NRC SOP QA-1104/AD-3100
Revision 3
Effective Date: 6/3/16

CLIENT: Lake County ESD
Work Order: 1610039
Project: Lead & Copper Study

ANALYTICAL QC SUMMARY REPORT

TestCode: ICPMS_200.8_SCHOOL

Sample ID MB-36702	SampType: MBLK	TestCode: ICPMS_200.8	Units: mg/L	Prep Date: 10/3/2016	RunNo: 90414						
Client ID: ZZZZZ	Batch ID: 36702	TestNo: EPA 200.8	(EPA 200.8)	Analysis Date: 10/5/2016	SeqNo: 1369243						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	ND	0.000500									
Lead	ND	0.000100									

Sample ID LCS-36702	SampType: LCS	TestCode: ICPMS_200.8	Units: mg/L	Prep Date: 10/3/2016	RunNo: 90414						
Client ID: ZZZZZ	Batch ID: 36702	TestNo: EPA 200.8	(EPA 200.8)	Analysis Date: 10/5/2016	SeqNo: 1369244						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	0.09972	0.000500	0.1	0.00004755	99.7	85	115				
Lead	0.09523	0.000100	0.1	0.00003082	95.2	85	115				

Sample ID 1609D11-01AMS	SampType: MS	TestCode: ICPMS_200.8	Units: mg/L	Prep Date: 10/3/2016	RunNo: 90414						
Client ID: ZZZZZ	Batch ID: 36702	TestNo: EPA 200.8	(EPA 200.8)	Analysis Date: 10/5/2016	SeqNo: 1369252						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	0.09506	0.000500	0.1	0.004997	90.1	70	130				
Lead	0.09790	0.000100	0.1	0.0007331	97.2	70	130				

Sample ID 1609D11-01AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: mg/L	Prep Date: 10/3/2016	RunNo: 90414						
Client ID: ZZZZZ	Batch ID: 36702	TestNo: EPA 200.8	(EPA 200.8)	Analysis Date: 10/5/2016	SeqNo: 1369253						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Copper	0.09533	0.000500	0.1	0.004997	90.3	70	130	0.09506	0.284	20	
Lead	0.09744	0.000100	0.1	0.0007331	96.7	70	130	0.0979	0.471	20	

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits
 ND Not Detected at the Minimum Reporting Limit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



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Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Page ___ of ___

Section A Required Client Information

Company: Lake County ESD
 Address: 357 North J. St.
 Email: lsorenson@lakeco.egis.org
 Phone: 541-947-3371 Fax: 541-947-3373
 Collected By (Print): Sara Sorenson
 E-mail Report Yes No Mail Report Yes No
 Fax Report Yes No

Section B Required Project Information

Project Name: _____
 Project Number: _____
 Report To: _____
 Copy To: _____
 P.O. # _____

Section C Invoice Information

Attention: Sara Sorenson
 Company Name: _____
 Address: _____
 P.O. # _____

Section D Rush Status (Subject to Scheduling)

Standard 10-14 Days
 5 Business Days (50% surcharge)
 3 Business Days (75% surcharge)
 24 - 48 hours (100% surcharge)
 Other _____
 Authorized Yes No

Section E Sample Information

Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	Analysis Requested	NRC Workorder # (Lab Use Only)	NRC Sample # (Lab Use Only)
Ladies Sink-3rd	21509	W	9-30-16	7:30 am	1	Lead Copper	1610039	01
Utility Sink-3rd	21553	W	9-30-16	7:30 am	1			02
Mens Sink-3rd	21499	W	9-30-16	7:30 am	1			03

Section F Relinquish/Receive

Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipes OT - Other

Relinquished By: Sara Sorenson Sign _____
 Received By: _____
 Relinquished By: _____
 Received By: _____
 Relinquished By: _____
 Received By: _____
 Relinquished By: _____
 Received By: _____

Date: _____ Time: _____

Section G Lab Use Only

Temp: AMB
 4°C +/- 2°C: Yes No
 Received on Ice: Yes No
 Number of Bottles Received: 3
 pH Checked: NA
 COC Seals Intact: Yes No
 Field Blank Included: Yes No
 Received Via: UPS FedEx Other Hand
 Payment: Invoice Cash VISA MC Check # _____ Amount _____